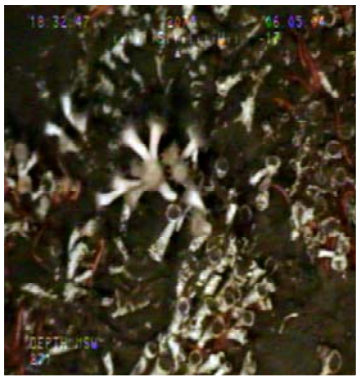
Office of National Marine Sanctuaries/National Centers for Coastal Ocean Science Long-term Agreement (ONMS/NCCOS LTA)

2005 Annual Liaison Report on Existing and Potential ONMS/NCCOS Collaborative Studies at the Olympic Coast National Marine Sanctuary (OCNMS)



Prepared by:

Jeff Hyland
National Centers for Coastal Ocean Science (NCCOS)
Center for Coastal Environmental Health and Biomolecular Research (CCEHBR)

December 9, 2005

1. Continuation of interactions between the National Centers for Coastal Ocean Science (NCCOS) liaison (Jeff Hyland) and Olympic Coast National Marine Sanctuary (OCNMS) research coordinator (Ed Bowlby) in efforts to stay abreast of OCNMS research needs and to help facilitate the responsiveness of NCCOS science to meeting such needs. Routine communications were made to promote the exchange of information on science capabilities, future management needs, and new ideas for research to address such needs.

2. Continuation of NCCOS/OCNMS's participation in the shelf-wide Environmental Monitoring and Assessment Program (EMAP) assessment of ecological condition of near-coastal waters along the western U.S. continental shelf, inclusive of 30 OCNMS sites at which samples were collected in 2003 for analysis of multiple biological and environmental indicators (Hyland and Bowlby with Environmental Protection Agency (EPA) and west-coast State partners). A final report, including a discussion of sanctuary conditions and characteristics in comparison to surrounding shelf waters, is expected by end of 2006.

3. Planning for a follow-up remotely operated vehicle (ROV) survey of deep-sea coral/sponge assemblages at OCNMS now scheduled for summer 2006. An earlier pilot survey, conducted in June 2004 under the ONMS/NCCOS partnership, documented for the first time the presence of the deepwater stony coral, *Lophelia pertusa*, at a site in 231 meters of water along with evidence of fishing impacts in the area (dead and broken corals, trawl marks in sediment, abandoned fishing gear on the seafloor). The primary goal of the 2006 follow-up cruise will be to develop a better understanding of the spatial extent of these assemblages and magnitude of potential impacts from commercial fishing and other anthropogenic activities in the area. Shiptime is scheduled for 8 days at sea (DAS) on MacArthur II. (Hyland and Bowlby with other state and academic partners).

4. Joint poster presentation by OCNMS and NCCOS scientists (Bowlby, Hyland, Brancato, Cooksey, Intelmann) on results of the June 2004 pilot survey of deepwater coral/sponge assemblages at OCNMS, given at the "Third International Symposium on Deep-Sea Corals," held November 28-December 2, 2005 in Miami FL.

5. Implementation of National Oceanic and Atmospheric Administration (NOAA) ship MCARTHUR II Cruise AR-05-05, June 16-23, 2005 devoted to the use of side-scan sonar (SSS) within offshore waters of the sanctuary, at depths of 100-400 m, to improve habitat-mapping coverage of the seafloor and to delineate locations of prominent hard-bottom substrate, suitable for growth of deepwater coral/sponge assemblages in areas of both high and low commercial-fishing activities. Areas with suitable coral habitat will be used to help identify candidate stations to revisit and survey in more detail, with an ROV or submersible, on subsequent cruises (such as the above ROV cruise planned for summer 06) aimed at learning more about the spatial extent of these assemblages and their susceptibility to commercial fishing and other anthropogenic activities in the area. (Intelmann, Bowlby, Hyland).

6. Facilitation of projects to be conducted by other NCCOS investigators at OCNMS through the ONMS/NCCOS partnership. A biogeographic characterization of the sanctuary was initiated in FY05 by members of the NCCOS Center for Coastal Monitoring and Assessment (CCMA) Biogeography Team (Randy Clark and Mark Monaco) and is expected to continue with additional funding in FY06. An initial kick-off meeting for this project was held in November 2004 and several public informational meetings were held successfully in February 2005 with various federal, state, academic, and tribal groups to begin the data collection phase of the project. The follow-up funding will support the next phase of the project aimed at synthesizing the information into a comprehensive biogeographic characterization of sanctuary resources. A fundamental step in this process is defining the oceanographic and climatological drivers that influence the distribution of biological resources. The climatology work also was initiated in FY05 through the ONMS/NCCOS Partnership by NCCOS/CCMA's Remote Sensing (Rick Stumpf) and Biogeography Teams. The integrated data sets will be used to develop spatial views of the patterns of various taxa (e.g., birds, fish, mammals, macroinvertebrates, and macroalgae) and their distributions in relation to various controlling oceanographic and climatic variables. This work is expected to support the OCNMS management plan review process as well as broader regional efforts aimed at the development of a comprehensive west coast biogeographic assessment.

7. An announcement was released in November 2005 to end the NCCOS Liaison function across the various sanctuaries. While this action officially eliminates the liaison role at OCNMS, we will continue to work with OCNMS staff as scientists and co-employees of NOAA to implement collaborative initiatives aimed at addressing important research and coastal management goals of the sanctuary, NCCOS, and NOAA.

CONTACTS

Office of National Marine Sanctuaries
Ed Bowlby, Research Coordinator
Olympic Coast National Marine Sanctuary
PH: (360) 457-6622 ext. 17
Internet Address: Ed.Bowlby@noaa.gov
http://olympiccoast.noaa.gov/

National Center for Coastal Ocean Science
Dr. Jeff Hyland, OCNMS Liaison
Center for Coastal Environmental Health and Biomolecular Research
PH: (843) 762-8652
Internet Address: jeff.hyland@noaa.gov
http://www.chbr.noaa.gov/